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## GRAYSON COUNTY

### (Grayson County Water Service Area Map)

- Estimated 1999 population of 23,600--83% on public water
- Estimated 2020 population of 26,800--84% on public water
- 560 miles of water lines, with plans for 28 additional miles
- Estimated funding needs for public water 2000-2005--\$1,850,000
- Estimated funding needs for public water 2006-2020--\$0

Grayson County had an estimated population of 23,616 (9,659 households) in 1999 with a projected population of 26,811 (11,550 households) in 2020. Public water is provided to about 83 percent of the county's residents. In areas of the county not served by public water, about 2/3 of the households rely on private domestic wells and 1/3 of the households rely on other sources. About 100 customers will be added to public water service through new line extensions in 2000-2020.

### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
GRAYSON								
Grayson County Water District	28	97	1,000				850	1,850
TOTAL	28	97	1,000				850	1,850

## PUBLIC WATER SYSTEMS

The residents of Grayson County are presently provided water by six systems: 2 water districts, Grayson County Water District and Edmonson County Water District/Wax Plant; 2 municipalities, the Leitchfield Water Works and Caneyville Municipal Water Works; and 2 non-community systems. There are some areas of the county, which are impractical to serve by public water, mostly because of monetary constraints. There are other areas near Nolin Lake that are not feasible because there are no permanent inhabitants.

### **GRAYSON COUNTY WATER DISTRICT**

PWSID: ..... 0430616  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source: ..... CANEYVILLE RESERVOIR  
Purchase Source: ..... 259 SOUTH

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# WATER SERVICE AREAS

## GRAYSON COUNTY

### Kentucky

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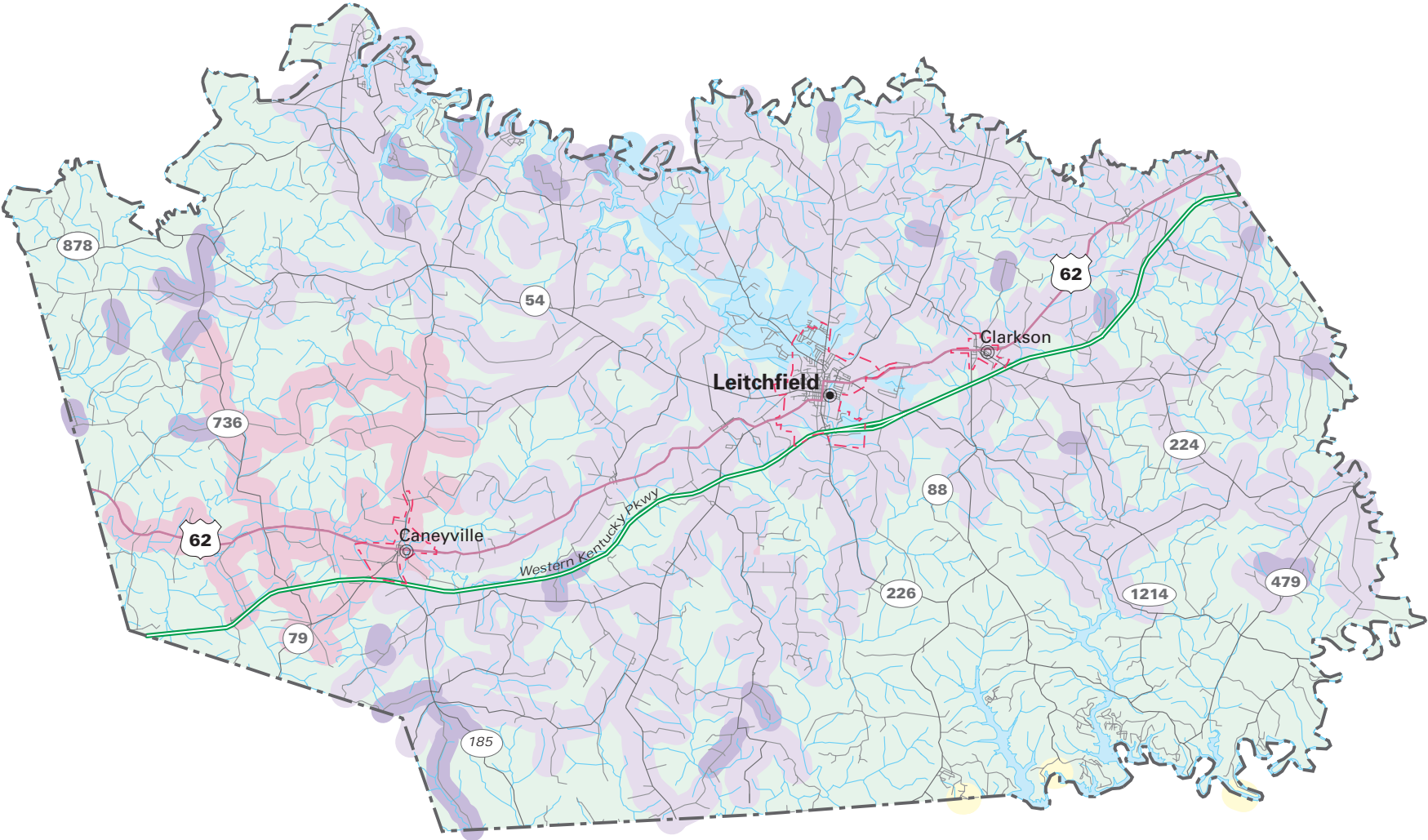
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#### WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		GRAYSON COUNTY WATER DISTRICT
		EDMONSON COUNTY WATER DISTRICT
		CITY OF LEITCHFIELD
		CITY OF CANEYVILLE WATER SYSTEM

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Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD):..... 0.29  
Percent Daily Average Production:..... 0.00  
Total Tank Storage Capacity (gallons):..... 1,000,000.00  
Total Service Connections: ..... 4,157.00  
Number of Employees:..... 0.00  
Treatment Operator Class: .....2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons:..... 6.56  
O/M costs 1997:..... 508,530.94  
O/M costs per Service Connection: ..... 123.40  
Net Revenue 1997: ..... 297,916.68  
Total Water Produced 1997 (gallons):..... 0.00  
Water Sold 1997 (gallons):..... 191,155,689.00  
Unaccounted-for Water 1997 (%): ..... 7.73

Grayson County Water District purchases its water from the City of Leitchfield, which in turn gets its water from the Rough River. According to the Grayson County Water Supply Plan Rough River has an adequate supply of water to support any future needs. The District currently services 4,157 customers in Grayson County. The City of Leitchfield Water Treatment Plant has a production capacity of approximately 2.7 million gallons per day. On the average, the plant produces approximately 2.0 million gallons per day. Approximately 74% of the design capacity is in use. Currently, the City of Leitchfield is in the process of upgrading the water treatment plant in order to alleviate problems with capacity. The District's storage system consists of five storage tanks located at various points within its service area. The total storage capacity of the district is 1,039,000 gallons, not including the storage capacity of the City of Leitchfield.

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### **CANEYVILLE MUNICIPAL WATER WORKS**

PWSID: ..... 0430063  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source: ..... CANEYVILLE RESERVOIR  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 46.00  
Total Tank Storage Capacity (gallons): ..... 123,000.00  
Total Service Connections: ..... 680.00  
Number of Employees: ..... 3.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 2A  
Customer Rate for 1,000 Gallons: ..... Not available  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

### **LEITCHFIELD WATER WORKS**

PWSID: ..... 0430244  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source: ..... ROUGH RIVER  
Purchase Source:  
Well Source:  
Sells Water to: ..... GRAYSON COUNTY WATER DISTRICT  
Treatment Plant Capacity (MGD): ..... 2.70  
Percent Daily Average Production: ..... 75.00  
Total Tank Storage Capacity (gallons): ..... 200,000.00  
Total Service Connections: ..... 2,500.00  
Number of Employees: ..... 11.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 3A  
Customer Rate for 1,000 Gallons: ..... Not available  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

### **EDMONSON COUNTY WATER DISTRICT/WAX PLANT**

Edmonson County Water District/Wax Plant is located in Grayson County. The system serves a population of 12,612 and has 4,080 service connections. The district has treatment

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capacity of 1,000,000 gallons per day. The water source is surface water from Nolin Reservoir.

## **OTHER SYSTEMS**

### **ROUGH RIVER STATE PARK**

Rough River State Park is located in Grayson County. The system serves a population of 200 and has 1 service connection. The state, non-transient, non-community system has treatment capacity of 144,000 gallons per day. The water source is surface water from Rough River Reservoir.

### **PINE KNOB DINER**

Pine Knob Diner is located in Grayson County. The system serves a population of 250 and has 1 service connection. The private, transient, non-community system has treatment capacity of 2,000 gallons per day. The water source is wells.

## **PRIVATE DOMESTIC SYSTEMS**

About 4,000 people in Grayson County rely on private domestic water supplies: 2,700 on wells, and 1,300 on other sources.

In the lowlands along the Rough River and the valleys draining into Caney Creek, and in the area extending 10 miles east and west from Leitchfield, most drilled wells are adequate for a domestic supply. Yields as high as 100 gpm have been reported from wells penetrating fault zones that are prominent in parts of Grayson County. Depths of adequate wells range from 100 to 300 feet. In the remaining areas of the county only a few wells yield enough water for a domestic supply except in the lowland areas bordering streams where yields are sometimes sufficient for some wells to meet the supply needs for domestic use.

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